

IN THE CLAIMS:

This listing of the claims replaces all prior versions and listings of the claims in this application.

The text of all pending claims (including any withdrawn claims) is set forth below. Canceled and not entered claims are indicated with claim number and status only. The claims as listed below show added text with underlining and deleted text with ~~strikethrough~~. The status of each claim is indicated with one of (Original), (Currently amended), (Canceled), (Withdrawn), (Previously presented), (New), and (Not entered).

Please AMEND claims 1-4, 7-12, 16-26, and 28-30 in accordance with the following:

1. (Currently amended) A heating crucible for an organic thin film forming apparatus, the heating crucible comprising:

a main body ~~in which to contain an organic substance;~~

~~a cover provided-disposed on the main body, the cover formed of being constituted by an insulating material and having-comprising a nozzle through which a gaseous organic substance comes out from the main body;~~

~~a cover heater formed as a thin film type on the top-disposed on a surface of the cover facing away from the main body, the cover heater being constituted by a thin film type heater;~~

~~a heat-resistant layer formed-on a surface of disposed so that the cover heater is disposed between the surface of the cover facing away from the main body and the heat-resistant layer;~~

~~a reflective layer disposed between the cover heater and the heat-resistant layer; and a body heater heating-disposed on the main body.~~

2. (Currently amended) The heating crucible of claim 1, wherein the entire cover heater is constituted by a single wire pattern ~~formed-extending over the entire top-surface of the cover facing away from the main body except where the single wire pattern of the entire cover heater exposes portions of the surface of the cover facing away from the main body, the single wire pattern of the entire cover heater having comprising a positive terminal at a first end of the single wire pattern of the entire cover heater and a negative terminal at a second end of the single wire pattern of the entire cover heater.~~

3. (Currently amended) The heating crucible of claim 2, wherein the single wire pattern of the entire cover heater is constituted by printed platinum on the surface of the cover facing away from the main body.

4. (Currently amended) The heating crucible of claim 1, wherein the cover further comprises further comprising at least one embedded thermocouple embedded in the cover.

5.-6. (Canceled)

7. (Currently amended) The heating crucible of claim 1, wherein the insulating material forming of the cover has a good heat radiation property; and
wherein the good heat radiation property of the insulating material of the cover is a heat radiation property that is substantially similar to a heat radiation property of aluminum nitride or alumina.

8. (Currently amended) The heating crucible of claim 7, wherein the insulating material of the cover is formed of alumina.

9. (Currently amended) The heating crucible of claim 1, wherein the cover heater is formed in has a concentric pattern that is concentric around the nozzle.

10. (Currently amended) The heating crucible of claim 1, wherein the cover heater is constituted by a sintered printed conductive paste on the surface of the cover facing away from the main body; and

wherein the conductive paste comprises metal particles and metal oxide.

11. (Currently amended) The heating crucible of claim 1, wherein the cover heater is constituted by a thin chemical vapor deposition graphite layer on the surface of the cover facing away from the main body.

12. (Currently amended) The heating crucible of claim 1, wherein the insulating material forming of the cover comprises a thermally conductive ceramic material.

13. (Previously presented) The heating crucible of claim 12, wherein the thermally conductive ceramic material comprises a ceramic nitride or a ceramic carbide.

14. (Original) The heating crucible of claim 13, wherein the ceramic nitride is aluminum nitride.

15. (Original) The heating crucible of claim 13, wherein the ceramic carbide is silicon carbide.

16. (Currently amended) The heating crucible of claim 1, wherein the cover heater is constituted by a sprayed heating block on the surface of the cover facing away from the main body; and

wherein the sprayed heating block is constituted by a sprayed heat emitting material on the surface of the cover facing away from the main body.

17. (Currently amended) The heating crucible of claim 1, wherein the main body is formed of constituted by an insulating material that is the same as the insulating material forming constituting the cover; and

wherein the body heater is formed as constituted by a thin film type heater disposed on the an outer wall of the main body.

18. (Currently amended) The heating crucible of claim 17, wherein the entire body heater is constituted by a single wire pattern formed extending over at least the an entire outer side wall of the main body except where the single wire pattern of the entire body heater exposes portions of the outer side wall of the main body, the single wire pattern of the entire body heater having comprising a positive terminal at a first end of the single wire pattern of the entire body heater and a negative terminal at a second end of the single wire pattern of the entire body heater.

19. (Currently amended) The heating crucible of claim 18, wherein the single wire pattern of the entire body heater is constituted by printed platinum on the outer side wall of the main body.

20. (Currently amended) The heating crucible of claim 18, wherein the single wire pattern of the entire body heater is further formed on the also extends over an entire outer bottom wall of the main body except where the single wire pattern of the entire body heater exposes portions of the outer bottom wall of the main body.

21. (Currently amended) The heating crucible of claim 17, wherein the insulating material forming of the main body is a ceramic material.

22. (Currently amended) The heating crucible of claim 17, wherein the main body further comprises further comprising at least one embedded thermocouple embedded in the main body.

23. (Currently amended) The heating crucible of claim 17, further comprising a heat-resistant layer on the surface of disposed so that the body heater is disposed between the outer wall of the main body and the heat-resistant layer.

24. (Currently amended) The heating crucible of claim 23, further comprising a reflective layer disposed between the body heater and the heat-resistant layer.

25. (Currently amended) The heating crucible of claim 17, wherein the insulating material forming of the main body has a good heat radiation property; and wherein the good heat radiation property of the insulating material of the main body is a heat radiation property that is substantially similar to a heat radiation property of aluminum nitride or alumina.

26. (Currently amended) The heating crucible of claim 25, wherein the insulating material of the main body is formed of alumina.

27. (Previously presented) The heating crucible of claim 1, wherein the nozzle is a convergent-divergent nozzle through which the gaseous organic substance comes out from the main body in a diverging pattern, thereby enabling the heating crucible to produce a diverging pattern of the gaseous organic substance.

28. (Currently amended) A heating crucible for an organic thin film forming apparatus, the heating crucible comprising:

a main body ~~in which to contain~~ an organic substance;

~~a cover provided~~ disposed on the main body, the cover ~~formed of~~ being constituted by an insulating material and ~~having~~ comprising a nozzle through which a gaseous organic substance comes out from the main body;

~~a cover heater formed as a thin film type~~ disposed on the ~~top~~ a surface of the cover facing away from the main body, the cover heater being constituted by a thin film type heater;

~~a heat-resistant layer formed on a surface of~~ disposed so that the cover heater ~~is~~ disposed between the surface of the cover facing away from the main body and the heat-resistant layer;

a reflective layer disposed between the cover heater and the heat-resistant layer; and
a body heater ~~heating~~ disposed on the main body;

wherein the nozzle extends from a surface of the cover facing toward the main body to a surface of the heat-resistant layer facing away from the main body;

wherein an entry opening of the nozzle through which the gaseous organic substance enters the nozzle is flush with the surface of the cover facing toward the main body;

wherein an exit opening of the nozzle through which the gaseous organic substance exits from the nozzle is flush with the surface of the heat-resistant layer facing away from the main body; and

wherein the nozzle converges from the entry opening to a throat of the nozzle at a junction between the cover and the heat-resistant layer, and diverges from the throat of the nozzle to the exit opening.

29. (Currently amended) The heating crucible of claim 1, wherein the cover heater is constituted by a single-layer cover heater; and

wherein the body heater is constituted by a single-layer body heater.

30. (Currently amended) The heating crucible of claim 29, wherein the single-layer cover heater is the only entire cover heater, on the cover, and wherein the single-layer body heater is the only entire body heater, on the main body.

31. (Previously presented) The heating crucible of claim 1, wherein the heat-resistant layer blocks heat generated by the cover heater from being transferred outside the heating crucible.